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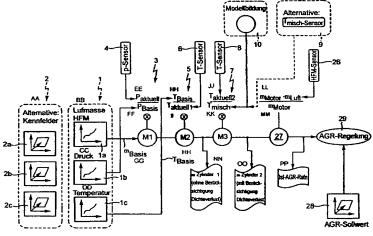
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[Fortsetzung auf der nächsten Seite]

(54) Title: METHOD FOR DETERMINING THE QUANTITY OF RECIRCULATED EXHAUST GAS

(54) Bezeichnung: VERFAHREN ZUR BESTIMMUNG DER ABGASRÜCKFÜHRMENGE



- PRESSURE TEMPERATURE
- CC DD
- PCURRENT
- FF REFERENCE
- GG
- MREFERENCE TREFERENCE
- CURRENTI
- ш T_{CURRENT2}
- KK
- ш
- M_{MOTEUR}

M CYLINDER 1 (WITHOUT TAKING INTO ACCOUNT DENSITY LOSS)
M CYLINDER 2 (TAKING INTO ACCOUNT DENSITY LOSS)
REAL RECIRCULATED EXHAUST GAS (REG) RATE ALTERNATIVE T_{MIX} SENSOR MODEL FORMATION

(57) Abstract: The invention relates to a method for determining the quantity of recirculated exhaust gas for an internal combustion engine recirculating exhaust gas. According to the inventive method, first a reference quantity of gas mixture that is fed to the combustion chamber/s of the engine and a reference pressure and/or a reference temperature of the gas mixture are determined for at least one preselectable reference condition of the internal combustion engine when exhaust gas recirculation is deactivated. The pressure and/or temperature of the fed gas mixture is/are then determined for the current engine condition when exhaust gas recirculation is activated and the engine runs. The current fed quantity of gas mixture is then determined based on the reference quantity corrected at least by the ratio between the current pressure and the reference pressure of the gas mixture and/or the ratio between the reference temperature and the current temperature of the gas mixture. Additionally, a proportion of unburned gas contained in the fed gas mixture is determined for the current engine

condition, whereupon the current quantity of recirculated exhaust gas is determined based on the difference between the determined current quantity of gas mixture and the determined proportion of unburned gas. The inventive method applies to diesel engines of motor vehicles, for example.

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